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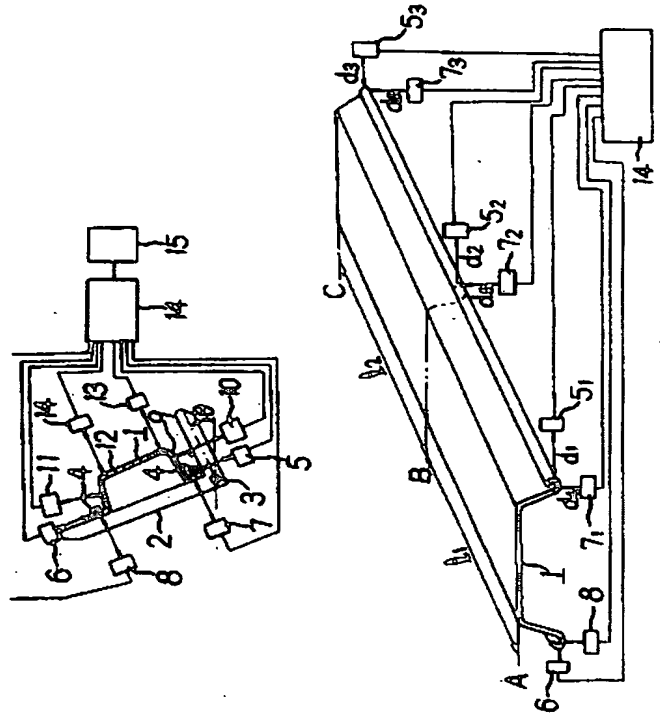
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APPLICANT : KAWASAKI STEEL CORP;

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TITLE : MEASURING METHOD
STRAIGHTNESS OF SHAPE STEEL
STOCK



ABSTRACT : PURPOSE: To realize an automatic measurement for the amount of distortion in a short time and with high accuracy, by installing at least three noncontacting measuring heads at three areas in the lengthwise direction of an object to be measured and calculating the value detected by these heads.

CONSTITUTION: An object 1 to be measured is put on a holding member 2, and three points A, B and C are selected with spaces l_1 and l_2 for three sections right-angles to the lengthwise direction of the object 1. Then noncontacting bent measuring heads 5_1 , 5_2 and 5_3 like laser beams are installed at the three points to be connected to an arithmetic circuit 14. In this constitution, the degree of bend between two points A and C is expressed as $d_1(d_3-d_1) \cdot l_1 / (l_1 + l_2) - d_2$, where the distances between the object 1 and each of the three heads are d_1 , d_2 and d_3 respectively. Then the head output is supplied to the circuit 14 to carry out the above-mentioned arithmetic, and the degree of bend is displayed on a display device 15. For the degree of warp, measuring heads $7_1 \sim 7_3$ are used. In such way, the extent of each type of distortion can be automatically measured in a short time and with high accuracy.

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